

## IN THE CLAIMS

Please amend the claims as follows:

1. (original) A low-pressure mercury vapor discharge lamp comprising an at least partly substantially cylindrical discharge vessel with a length  $L_{dv}$  and with an internal diameter  $D_{in}$ ,
  - the discharge vessel enclosing, in a gastight manner, a discharge space provided with a inert gas mixture and with mercury,
  - the discharge vessel comprising discharge means for maintaining a discharge in the discharge space,characterized in that the ratio of the weight of mercury  $m_{Hg}$  in the discharge vessel to the product of the internal diameter  $D_{in}$  and the length of the discharge vessel  $L_{dv}$  is given by the relation:

$$\frac{m_{Hg}}{D_{in} \times L_{dv}} = C ,$$

wherein  $C \leq 0.01 \text{ } \mu\text{g}/\text{mm}^2$ .

2. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that  $0.0005 \leq C \leq 0.005 \text{ } \mu\text{g}/\text{mm}^2$ .
3. (original) A low-pressure mercury vapor discharge lamp comprising an at least partly substantially cylindrical discharge vessel with a length  $L_{dv}$  and with an internal diameter  $D_{in}$ ,

- the discharge vessel enclosing, in a gastight manner, a discharge space provided with an inert gas mixture and with mercury,
- the discharge vessel comprising discharge means for maintaining a discharge in the discharge space, characterized in that
- the product of the mercury pressure  $p_{Hg}$  and the internal diameter  $D_{in}$  of the discharge vessel is in a range of  $0.13 \leq p_{Hg} \times D_{in} \leq 8$  Pa.cm.

4. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 3, characterized in that the product of the mercury pressure  $p_{Hg}$  and the internal diameter  $D_{in}$  of the discharge vessel is in a range of  $0.13 \leq p_{Hg} \times D_{in} \leq 4$  Pa.cm.

5. (currently amended) A low-pressure mercury vapor discharge lamp as claimed in claim ~~1, 2, 3, or 4~~, characterized in that the discharge vessel contains less than 0.1 mg mercury.

6. (currently amended) A low-pressure mercury vapor discharge lamp as claimed in claim ~~1, 2, 3, or 4~~, characterized

- in that the discharge means comprises electrodes arranged in the discharge space,

- in that an electrode shield at least substantially surrounds at least one of the electrodes, and
- in that the electrode shield is made from a ceramic material or from stainless steel.

7. (currently amended) A low-pressure mercury vapor discharge lamp as claimed in claim ~~1, 2, 3, or 4~~, characterized

- in that the means for maintaining an electric discharge are situated outside a discharge space surrounded by the discharge vessel, and
- in that said means comprise a coil provided with a winding of an electrical conductor, with a high-frequency voltage, for example having a frequency of approximately 3 MHz, being supplied to said coil in operation.

8. (currently amended) A low-pressure mercury vapor discharge lamp as claimed in claim ~~1, 2, 3, or 4~~, characterized in that the product of the pressure of the inert gas mixture  $p_{igm}$  and the internal diameter  $D_{in}$  of the discharge vessel is in a range of  $p_{igm} \times D_{in} \geq 5.2$  Pa.m.

9. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 8, characterized in that  $p_{igm} \times D_{in} \geq 8$  Pa.m.

10. (currently amended) A low-pressure mercury vapor discharge lamp as claimed in claim 1, ~~2, 3, or 4~~, characterized

- in that at least a portion of an inner wall of the discharge vessel is provided with a protective layer, and

- in that the protective layer comprises a material selected from the group formed by oxides of scandium, yttrium, and a further rare-earth metal, and/or a material selected from the group formed by borates of an alkaline-earth metal, scandium, yttrium, and a further rare-earth metal, and/or a material selected from the group formed by phosphates of an alkaline-earth metal, scandium, yttrium, and a further rare-earth metal.

11. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 10, characterized in that the alkaline-earth metal is calcium, strontium, and/or barium.

12. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 10, characterized in that the further rare-earth metal is lanthanum, cerium, and/or gadolinium.

13. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 10, characterized in that the oxide is yttrium oxide and/or gadolinium oxide.

14. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 10, characterized in that the discharge vessel is made from a glass comprising silicon dioxide and sodium oxide, with a glass composition comprising the following essential constituents, given in percentages by weight (wt.%): 60-80 wt.%  $\text{SiO}_2$  and 10-20 wt.%  $\text{Na}_2\text{O}$ .

15. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 14, characterized in that the glass composition includes the following constituents:

70-75 wt.%  $\text{SiO}_2$ , 15-18 wt.%  $\text{Na}_2\text{O}$ , and 0.25-2 wt.%  $\text{K}_2\text{O}$ .

16. (currently amended) A low-pressure mercury vapor discharge lamp as claimed in claim ~~1, 2, 3, or 4~~, characterized in that the discharge vessel is made from a glass which is substantially free of  $\text{PbO}$  and which comprises, expressed as a percentage by weight, the following constituents: 55-70 wt.%  $\text{SiO}_2$ , <0.1 wt.%  $\text{Al}_2\text{O}_3$ , 0.5-4 wt.%  $\text{Li}_2\text{O}$ , 0.5-3 wt.%  $\text{Na}_2\text{O}$ , 10-15 wt.%  $\text{K}_2\text{O}$ , 0-3 wt.%  $\text{MgO}$ , 0-4 wt.%  $\text{CaO}$ , 0.5-5 wt.%  $\text{SrO}$ , 7-10 wt.%  $\text{BaO}$ .

17. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 16, characterized in that the composition of the discharge vessel comprises: 65-70 wt.% SiO<sub>2</sub>, 1.4-2.2 wt.% Li<sub>2</sub>O, 1.5-2.5 wt.% Na<sub>2</sub>O, 11-12.3 wt.% K<sub>2</sub>O, 1.8-2.6 wt.% MgO, 2.5-5 wt.% CaO, 2-3.5 wt.% SrO, 8-9.5 wt.% BaO.

18. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 16, characterized in that the composition of the discharge vessel in addition comprises:  
0.01-0.2 wt.% Fe<sub>2</sub>O<sub>3</sub> and/or 0.01-0.2 wt.% CeO<sub>2</sub> and/or 0.01-0.15 wt.% SO<sub>3</sub>.

19. (original) A low-pressure mercury vapor discharge lamp as claimed in claim 16, characterized in that the sum of the concentrations of Li<sub>2</sub>O, Na<sub>2</sub>O, and K<sub>2</sub>O is in a range from 14 to 16 wt.% and/or the sum of the concentrations of SrO and BaO is in a range from 10 to 12.5 wt.%.

20. (currently amended) A compact fluorescent lamp comprising a low-pressure mercury vapor discharge lamp as claimed in claim 1, ~~2,~~  
~~3, or 4,~~ characterized in that a lamp housing is attached to the

discharge vessel of the low-pressure mercury vapor discharge lamp,  
which lamp housing is provided with a lamp cap.